

MULTI-LEVEL CACHING IN DATA STORAGE DEVICES**Abstract**

A multi-level caching scheme for use in managing the storage of data on a data storage device is disclosed. The data is received by the data storage device as part of a write command issued by the sending interface and specifying one or more particular location(s) on the data storage device to which the data is/are to be stored. The data storage device utilizes a first level (L1) and a second level (L2) of cache memory to temporarily store the received data prior to commission to the specified storage location(s). In this embodiment, the data storage device first sends the data to the L1 cache memory, and subsequently thereafter, the data storage device transfers the data from the L1 cache memory to the L2 cache memory. Eventually, the data storage device transfers the data from the L2 cache memory to the specified storage location(s).